

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

<b>Application Number</b>	10/782,733
<b>Filing Date</b>	February 19, 2004
<b>First Named Inventor</b>	John Fralick
<b>Art Unit</b>	3737
<b>Examiner Name</b>	Lamprecht, Joel
<b>Attorney Docket Number</b>	186575/US/2

<b>Sheet</b>	1	<b>of</b>	6
--------------	---	-----------	---

**U.S. PUBLICATION DOCUMENTS**

Examiner Initials	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US 2002/0072932	06/2002	Swamy	
		US 2002/0098588	07/25/2002	Sammak, et al.	
		US 2002/0118361	08/29/2002	Cadell et al.	
		US 2002/0133080	09/2002	Apruzzese et al.	
		US 2002/0022775	02/21/2002	Finkelshteins	
		US 2003/0030798	02/2003	Samsoondar et al.	
		US 2006/0092411	05/04/2006	Ferguson et al.	
		US 2004/0254479	12/16/2004	Fralick et al.	
		US 2005/0197580	09/08/2005	Ferguson et al.	
		US 2005/0197582	09/08/2005	Ferguson et al.	
		US 2005-0197581	09/08/2005	Ferguson et al.	
		US 2005-0278184	12/15/2005	Fralick et al.	

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US 3,272,766	09/1966	Gowman	
		US 4,252,709	02/24/1981	Skostins	
		US 4,318,057	03/1982	Buchwald et al.	
		US 4,500,995	02/1985	White	
		US 4,758,081	07/1988	Barnes	
		US 4,807,240	02/1989	Goldstone	
		US 4,832,483	05/1989	Verma	
		US 4,852,579	08/1989	Gilstad et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sent completed form to: **Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450**



Substitute for form 1449/PTO				Application Number	10/782,733
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Filing Date	February 19, 2004
				First Named Inventor	John Fralick
				Art Unit	3737
				Examiner Name	Lamprecht, Joel
Sheet	2	of	6	Attorney Docket Number	186575/US/2

### U.S. PATENT DOCUMENTS

*Examiner Initials	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US 4,858,238	08/1989	Cardimona	
		US 4,975,581	12/4/1990	Robinson et al.	
		US 5,034,228	07/1991	Meybeck et al.	
		US 5,124,313	06/1992	Schaeffer et al.	
		US 5,243,983	09/1993	Tarr et al.	
		US 5,275,168	01/1994	Reintjes et al.	
		US 5,290,605	03/1994	Shapira	
		US 5,303,026	04/1994	Strobl et al.	
		US 5,304,170	04/1994	Green	
		US 5,310,563	05/10/1994	Curtis et al.	
		US- 5,346,488	09-13-1994	Prince et al.	
		US- 5,348,018	09-20-1994	Alfano et al.	
		US- 5,418,797	05-23-1995	Bashkansky et al.	
		US- 5,421,337	06-06-1995	Richards-Kortum et al.	
		US- 5,432,610	07-11-1995	King et al.	
		US 5,449,376	09/12/1995	Callahan	
		US- 5,451,785	09-19-1995	Faris	
		US- 5,452,723	09-26-1995	Wu et al.	
		US 5,552,997	09/03/1996	Massart	
		US- 5,553,616	09-10-1996	Ham et al.	
		US- 5,556,612	09-17-1996	Anderson et al.	
		US- 5,567,628	10-22-1996	Tarcha et al.	
		US- 5,579,773	12-03-1996	Vo-Dinh et al.	
		US- 5,590,660	01-07-1997	MacAulay et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sent completed form to: **Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450**



Substitute for form 1449/PTO				Application Number	10/782,733
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Filing Date	February 19, 2004
				First Named Inventor	John Fralick
				Art Unit	3737
				Examiner Name	Lamprecht, Joel
Sheet	3	of	6	Attorney Docket Number	186575/US/2

## U.S. PATENT DOCUMENTS

Examiner Initial	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5,643,623	07-01-1997	Schmitz et al.	
		US- 5,657,754	08-19-1997	Rosencwaig	
		US- 5,697,373	12-16-1997	Richards-Kortum et al.	
		US 5,730,714	03/24/1998	Guy et al.	
		US- 5,733,507	03-31-1998	Zakim	
		US- 5,811,804	09/1998	Van Blitterswijk et al.	
		US- 6,595,929	07/2003	Stivorice et al.	
		US 6,621,574	09/16/2003	Forney et al.	
		US- 6,690,966	02-10-2004	Rava et al.	
		US- 7,039,452	05-02-2006	McClane et al.	
		US- 7,365,839	04/29/2008	Ferguson et al.	

## FOREIGN PATENT DOCUMENTS

Examiner Initial	Cite No.	FOREIGN PATENT DOCUMENT		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	TRANSLATION	
		Country Code:	Number - Kind Code (if known)				YES	NO
		EP	0 368 436	05/16/1990	Hamamatsu Photonics KK		<input type="checkbox"/>	<input type="checkbox"/>
		EP	0722692 A1	07-24-1996	Hughes Aircraft Company		<input type="checkbox"/>	<input type="checkbox"/>
		WO	1992/10131	06-25-1992	Georgia Tech Research Corporation			
		WO	1992/15008	09-03-1992	Massachusetts Institute of Technology			
		WO	2000/078217	12/28/2000	University of Utah Research Foundation			
		WO	2001/078577	10/25/2001	Vivometrics, Inc.			

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sent completed form to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450



Substitute for form 1449/PTO				<b>Application Number</b>		<b>10/782,733</b>			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Filing Date</b>		<b>February 19, 2004</b>			
				<b>First Named Inventor</b>		<b>John Fralick</b>			
				<b>Art Unit</b>		<b>3737</b>			
				<b>Examiner Name</b>		<b>Lamprecht, Joel</b>			
				<b>Attorney Docket Number</b>		<b>186575/US/2</b>			
<b>Sheet</b>	<b>4</b>	<b>of</b>	<b>6</b>						
<b>FOREIGN PATENT DOCUMENTS</b>									
*Examiner Initial	Cite No.	FOREIGN PATENT DOCUMENT			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	TRANSLATION	
		Country Code:	Number - Kind Code (if known)					YES	NO
		WO	2002/043585		06/06/2002	Optiscan Biomedical Corp		<input type="checkbox"/>	<input type="checkbox"/>
		WO	2002/063269		08/15/2002	Apruzzese William et al.		<input type="checkbox"/>	<input type="checkbox"/>
		JP	2003-507088 (abstract only)		02/25/2003	University of Utah Research Foundation		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		JP	2003-530184 (abstract only)		10/14/2003	VIVOMETRICS INC		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		JP	2003-108679		04/11/2003	Toshiba Corp.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		TW	552126B		09/11/2003	Philometron Inc.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		TW	558635B		10/21/2003	Biofiber Identification Inc.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>
<b>OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS</b>									
*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published						TRANSLATION	
								YES	NO
		BAYS, R. et al. "Three-dimensional optical phantom and its application in photodynamic therapy," Lasers in Surgery and Medicine, Wiley-Liss, New York, US, Vol. 21, No. 3, pp. 227-234 (Jan. 1, 1997).						<input type="checkbox"/>	<input type="checkbox"/>
		BERENDSCHOT, Tos T. J. M., et al., "Influence of Lutein Supplementation on Macular Pigment, Assessed with Two Objective Techniques," IOVS, Oct. 2000, vol. 41, No. 11, pp. 3322-3326.						<input type="checkbox"/>	<input type="checkbox"/>
		BONE, R.A., Landrum, J.T., and Cains, A, "Optical Density Spectra of the Macular Pigment In Vivo and In Vitro," Vision Res., vol. 32, No. 1, pp. 105-110, 1992.						<input type="checkbox"/>	<input type="checkbox"/>
		BRENAN, C.J.H. et al. "Volumetric Raman microscopy through a turbid medium," Journal of Raman Spectroscopy, Vol. 27, pp. 561-571 (1996).						<input type="checkbox"/>	<input type="checkbox"/>
		BRODY, J.E., "Health Factor in Vegetables Still Elusive," The New York Times, Section C, p. 1, (Feb. 21, 1995).						<input type="checkbox"/>	<input type="checkbox"/>
EXAMINER SIGNATURE					DATE CONSIDERED				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									

Sent completed form to: **Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450**



Substitute for form 1449/PTO				<b>Application Number</b>	10/782,733	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Filing Date</b>	February 19, 2004	
				<b>First Named Inventor</b>	John Fralick	
				<b>Art Unit</b>	3737	
				<b>Examiner Name</b>	Lamprecht, Joel	
				<b>Attorney Docket Number</b>	186575/US/2	
<b>Sheet</b>	5	<b>of</b>	6			
<b>OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS</b>						
*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			TRANSLATION	
					YES	NO
		CERUSSI, A.E. et al. "Chromophore detection by fluorescence spectroscopy in tissue-like phantoms," SPIE, 2979, pp. 139-150 (1997).			<input type="checkbox"/>	<input type="checkbox"/>
		DUBOIS, D. et al. "Moldable tissue equivalent bolus for high-energy photon and electron therapy," Medical Physics, Vol. 23, No. 9: pp. 1547-1549 (1996).			<input type="checkbox"/>	<input type="checkbox"/>
		ELSNER, Ann E., et al, "Foveal Cone Photopigment Distribution: Small Alterations Associated with Macular Pigment Distribution," IOVS, Nov. 1998, vol. 39, No. 12, pp. 2394-2404.			<input type="checkbox"/>	<input type="checkbox"/>
		FIRBANK and D.T. DELPY, M. "A design for a stable and reproducible phantom for use in near infra-red imaging and spectroscopy," Physics in Medicine and Biology, Taylor and Francis Ltd., London, GB, Vol. 38, No. 6, pp. 847-853 (June 1, 1993).			<input type="checkbox"/>	<input type="checkbox"/>
		FIRBANK, Michael et al. "An improved design for a stable and reproducible phantom material for use in near-infrared spectroscopy and imaging," Physics in Medicine and Biology, Taylor and Francis Ltd., London, GB, Vol. 40, No. 5, pp. 955-961 (Jan. 1, 1995).			<input type="checkbox"/>	<input type="checkbox"/>
		GELLERMANN, W. et al. "Noninvasive laser Raman detection of carotenoid antioxidants in living human skin," SPIE, Vol. 4244, pp. 36-44 (2001).			<input type="checkbox"/>	<input type="checkbox"/>
		GNIADZKA, Monika et al. "Distinctive Molecular Abnormalities in Benign and Malignant Skin Lesions: Studies by Raman Spectroscopy," Photochemistry and Photobiology, 1997, 66(4): 418-423.			<input type="checkbox"/>	<input type="checkbox"/>
		HAMMOND, B.R., Fuld, K., and Curran-Celentano, J., "Macular Pigment Density in Monozygotic Twins," Invest. Ophthalmol. Vis. Sci., vol. 36, No. 12, pp. 2531-2541, Nov., 1995.			<input type="checkbox"/>	<input type="checkbox"/>
		HANDELMAN, G.J., Snodderly, D.M., Krinsky, N.L., Russett, M.D., and Adler, A.J., "Bilocal Control of Primate Macular Pigment," Inv. Ophthalmol. Vis. Sci., vol. 32, No. 2, pp. 257-267, Feb., 1991.			<input type="checkbox"/>	<input type="checkbox"/>
		HATA, T. R. et al. "Non-invasive Raman spectroscopic detection of carotenoids in human skin", Journal of Investigative Dermatology, Vol. 115, No. 3, pp. 441-448 (2000).			<input type="checkbox"/>	<input type="checkbox"/>
		HUNT, S. et al. "Spectroscopic characterization of low molecular weight fluids from silicone elastomers," Journal of Macromolecular Science, Pure and Applied Chemistry, Vol. A39, No. 9, pp. 1007-1024 (2002).			<input type="checkbox"/>	<input type="checkbox"/>
		LAMBERT, J. L. et al. "Measurement of aqueous glucose in a model anterior chamber using Raman spectroscopy", Journal of Raman Spectroscopy, Vol. 33, pp. 524-529 (2002).			<input type="checkbox"/>	<input type="checkbox"/>
EXAMINER SIGNATURE				DATE CONSIDERED		
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						

Sent completed form to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450



Substitute for form 1449/PTO			Application Number	10782,733	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>			Filing Date	February 19, 2004	
			First Named Inventor	John Frallick	
			Art Unit	3737	
			Examiner Name	Lamprecht, Joel	
Sheet	6	of	6	Attorney Docket Number	186575/US/2
<b>OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS</b>					
*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION		
			YES	NO	
		LUALDI, M. et al. "A phantom with tissue-like optical properties in the visible and near infrared for use in photomedicine", Lasers in Surgery and Medicine, Vol. 28, pp. 237-243 (2001).	<input type="checkbox"/>	<input type="checkbox"/>	
		MAKROPOULOU, M.I. et al. "Quantitative estimation of absorbing chromophores in tissue simulators based on laser induced spectroscopy and scattering measurements," SPIE Vol. 4162, pp. 76-85 (2000).			
		POGUE, B. W. et al. "Review of tissue simulating phantoms for optical spectroscopy, imaging, dosimetry," Journal of Biomedical Optics, SPIE, P.O. Box 10, Bellingham, WA, 98227-0010, Vol. 11, No. 4, pp. 41102 (July 1, 2006).	<input type="checkbox"/>	<input type="checkbox"/>	
		POLYZOIS, G.L. et al. "Physical properties of a silicone prosthetic elastomer stored in simulated skin secretions," Journal of Prosthetic Dentistry, Vol. 83, No. 5, pp. 572-577 (2000).	<input type="checkbox"/>	<input type="checkbox"/>	
		SCHALCH, Wolfgang, "Carotenoids in the Retina--A Review of Their Possible Role in Preventing or Limiting Damage Caused by Light and Oxygen," Free Radicals and Aging, Basel, Switzerland: Birkhauser Verlag, pp. 280-298, 1992.	<input type="checkbox"/>	<input type="checkbox"/>	
		SCHUT, Tom C. Bakker et al. "Intracellular Carotenoid Levels Measured by Raman Microspectroscopy: Comparison of Lymphocytes from Lung Cancer Patients and Healthy Individuals," Int. J. Cancer (Pred. Oncol): 74, 20-25 (1997).	<input type="checkbox"/>	<input type="checkbox"/>	
		SEDDON, J.M., Ajani, U.A., Sperduto, R.D., Hiller, R., Blair, N., Burton, T.C., Farber, M.D., Gragoudas, E.S., Haller, Jr., Miller, D.T., Yannuzzi, L.A., and Willet, W., "Dietary Carotenoids, Vitamins A, C and E, and Advanced Age-Related Macular Degeneration," J. Am. Med. Assoc., vol. 272, No. 18, pp. 1413-1420, Nov. 9, 1994.	<input type="checkbox"/>	<input type="checkbox"/>	
		SHIM, M. G. et al. "Study of Fiber-Optic Probes for in vivo Medical Raman Spectroscopy," Applied Spectroscopy, Vol. 53, No. 6, pp. 619-627 (1999).	<input type="checkbox"/>	<input type="checkbox"/>	
		WAGNIERES, G. et al. "An optical phantom with tissue-like properties in the visible for use in PDT and fluorescence spectroscopy," Physics in Medicine and Biology, Taylor and Francis Ltd., London, GB, Vol. 42, No. 7, pp. 1415-1426 (July 1, 1997).	<input type="checkbox"/>	<input type="checkbox"/>	
		WU, J. et al. "Three-dimensional imaging of objects embedded in turbid media with fluorescence and Raman spectroscopy," Applied Optics, Vol. 34, No. 18, pp. 3425-3429 (1995).	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
EXAMINER SIGNATURE			DATE CONSIDERED		
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

Sent completed form to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450